



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Christopher P. Laurello et al.

Docket: 102094-200

Serial No.:

Art Unit:

Filed: Herewith

Examiner:

Conf. No.

Cust. No. 27267 SEP 01 2004

Assignee: Olin Corporation

RECEIVED
OFFICE OF PETITIONS

Title: TARNISH DETERRING TIN COATING

CERTIFICATION UNDER 37 CFR §1.10

I hereby certify that this New Application Transmittal and the documents referred to as enclosed therein are being deposited with the United States Postal Service on this date August 31, 2004 in an envelope as "Express Mail Post Office to Addressee" Mailing Label No. EV 54476S425 US to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Elizabeth A. Geschke

Printed Name of Person Mailing Paper

Elizabeth A. Geschke
Signature of Person Mailing Paper

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In keeping with the duty of candor and good faith owed to the Patent and Trademark Office, Applicants wish to make of record the items on attached PTO Form 1449 in the present application. Copies of the items are enclosed herein.

1. U.S. Patent No. 4,883,774 to Djehnas et al. issued November 28, 1989. This reference discloses a process for plating metal leadframes. The leadframe is plated with a silver layer. The silver layer has a thickness in the range of 100 to 1000 angstroms.
2. U.S. Patent No. 5,510,197 to Takahashi et al. issued April 23, 1996. This reference discloses a lead frame material comprising a base plate consisting of copper or copper alloys and a protective coating formed on the upper or the both surface of the base plate. The protective coating is composed of at least one metal selected from the group consisting of gold, gold alloy, silver, silver alloy, palladium, and palladium alloy and has a thickness of 10-500 angstroms.

3. U.S. Patent No. 6,596,621 to Copeland et al. issued July 22, 2003. This reference discloses a method of forming a lead-free solder alloy on an electronic substrate. The electronic substrate has a Ag (silver) layer. The nominal thickness of the Ag layer is 1000 angstroms.

4. JP 01-306574 published December 11, 1989. According to its abstract this reference discloses a first cladding layer of an Ni, Co, or Ni-Co alloy and a second cladding layer of Ag or an Ag alloy successively formed on the surface of a Cu or Cu alloy base material and the surface of the second cladding layer is clad with Sn or an Sn alloy. The thickness of the second cladding layer is between 0.005-0.5 micron (50-5000 angstroms).


5. JP 01-283780 published November 15, 1989. According to its abstract this reference discloses a covering layer of Ag or Ag alloy furnished over a Cu or Cu alloy base material and thereover a covering layer of Sn or Sn alloy is placed to accomplish a covering material. The text of the reference suggests that the Ag layer has a thickness between 0.005-0.5 micron (50-5000 angstroms).

6. JP 02-301573 published on December 13, 1990. According to its abstract this reference discloses a first coating layer of Ni, Co or an alloy containing them, a second coating layer of Ag or an Ag alloy and a melted and solidified coating layer of Sn or an Sn alloy successively formed on the surface of a Cu or a Cu alloy base material. The thickness of the first coating layer is regulated to 0.05-1.0 micron and that of the second coating layer to 0.005-0.5 micron (50-5000 angstroms).

The undersigned represents that the closest art of which he is presently aware has been cited herein and understands that this statement shall not be construed as representation that no better art exists or that a thorough patentability search has been made.

Respectfully submitted,
Christopher P. Laurello et al.

Date: 8-31-04
Reg. No. 52,941



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FORM PTO-1449

INFORMATION DISCLOSURE	ATTY. DOCKET No. 102094-200	SERIAL No. NOT YET RECEIVED
	APPLICANT: CHRISTOPHER P. LAURELLO	
	FILING DATE: HEREWITH	GROUP:

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT No.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPR.
	4,883,774	11/25/89	Djennas et al.	437	211	
	5,510,197	4/23/96	Takahashi et al.	428	670	
	6,596,621	7/22/03	Copeland et al.	438	614	

FOREIGN PATENT DOCUMENTS

OFFICE OF PETITIONS

EXAMINER INITIALS	DOCUMENT No.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	01-306574	12/11/89	JP			
	01-283780	11/15/89	JP			
	02-301573	12/13/90	JP			

OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

EXAMINER:

DATE CONSIDERED:

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include c/opy of this form with next communication to applicant.

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